

REMARKS

Claims 1-11 are in this application and are presented for consideration. By this amendment, Applicant has amended claims 1-6. New claims 7-11 have been added.

Claims 1, 2, 5 and 6 have been objected to because of minor informalities.

Applicant has amended the claims paying close attention to the Examiner's remarks. Applicant wishes to thank the Examiner for the careful review of the claims. Applicant respectfully requests that the Examiner remove the objection to the claims in view of the changes to the claims.

Claims 1-6 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Applicant has amended the claims paying close attention to the Examiner's remarks. Specifically Applicant has amended claims 1 and 2 to include the presser washer so that it is clear that the presser washer holds the second bracket and the plate spring member in contact with each other. The Office Action states that claim 2 contradicts the drawings as the drawings show friction member 3 is non-rotatably installed on the shaft. Claim 2 provides that the friction member is non-rotatably and axially movably installed on the movable shaft 2, which is consistent with the drawings. Applicant has amended claim 4 to provide that two plate spring members sandwich the second bracket as clearly shown in Figure 19 of Applicant's drawings. It is Applicant's position that the claims as now presented are clear and fully comply with the requirements of the statute. Accordingly, Applicant respectfully requests that the

Examiner remove the indefiniteness rejection in light of the changes to the claims.

Claims 1 - 4 and 6 have been rejected under 35 U.S.C. 102(b) as being anticipated by JP 2003-161311 (hereinafter "JP '311").

The present invention relates to a hinge device for connecting one member and another member so that the hinge device allows opening and closing of the members. The hinge device includes a plate spring member that is rotatable relative to a second bracket. A first bracket is non-rotatably fixed on a movable shaft and fixed to one of the members. The second bracket and the plate spring member are pressed against and held in contact with each other via the presser washer. This advantageously provides a hinge device that has a simple structure that has a small number of components that are extremely easy to assemble, which significantly reduces manufacturing costs. Further, the plate spring member being rotatable relative to the second bracket advantageously allows a large rotational torque to be generated. This advantageously generates a tactile feel of the members so that a user can tell when at least one of the members has been opened to a particular position. The prior art as a whole fails to teach or suggest such features or such large rotational torque generating advantages.

JP '311 discloses a hinge that has a pivot axis 6 that is provided with a first turning body 12. The first turning body 12 turns with the pivot axis 6. A bearing portion 8 is provided with a second body 13 turning with the bearing portion 8. On one location of the first turning body, there is provided a cam portion 9 or a cam engaging portion. On one location of the second turning body there is provided a cam engaging portion or a cam portion so that even if at least a first coupling body 5 turns from a turn-lock state in which the cam portion engages

with the cam engaging portion at an angle of 180 degrees relative to a second coupling body 8, it is prevented that the cam engaging portion and the cam portion re-engage with each other to cause a turn-lock state.

JP '311 fails to teach and fails to suggest the combination of a plate spring member that is rotatable relative to a second bracket as recited in claim 1. JP '311 merely discloses a bearing portion 8 that is provided with a second body 13. According to JP '311, the bearing portion 8 turns with the second body 13. However, the bearing portion 8 of JP '311 does not rotate relative to the second body 13 as featured in the present invention. Compared with JP '311, the plate spring member of the present invention rotates relative to the second plate. This advantageously allows large rotational torques to be generated so that a tactile feel can be generated so that the user knows when at least one of the members is being opened to a particular position. In contrast to the present invention, the second body 13 of JP '311 is a cam member that is non-rotatably fixed to the bracket 7. As such, the second body 13 is not the equivalent of the plate spring member of the present invention since the cam member 13 is non-rotatably fixed to the bracket 7 as claimed. Further, the second body 13 is non-rotatably fixed to the bracket 7 and therefore the second body 13 and the bracket 7 are not held in contact with each other and do not rotate relative to each other as claimed. JP '311 clearly discloses that the projection 13A of the second body 7 is a member for fixing the second rotating body 13 to the bracket 7. The projection 13A of the second body of JP '311 is not a member held in contact with the bracket 7 such that the second body 13 rotates relative to the bracket 7. As such, the prior art as a whole takes a completely different approach and fails to teach or suggest

each and every feature of the claimed combination. Accordingly, Applicant respectfully requests that the Examiner favorably consider claim 1 as now presented and all claims that depend thereon.

JP '311 fails to teach and fails to suggest the combination of a plate spring member that is non-rotatably and axially movably installed on a movable shaft wherein a friction washer is rotatably and axially movably installed on the movable shaft as featured in claim 2. The Office Action takes the position that the second body 13 of JP '311 is the equivalent of the plate spring member of the present invention. Applicant respectfully disagrees with this interpretation of JP '311. The second body 13 of JP '311 is a cam member that is non-rotatably fixed to the bracket 7. Therefore, the second body 13 and the bracket 7 of JP '311 are not held in contact with each other and do not rotate relative to one another as claimed. The projection 13A of the second body 13 of JP '311 is a member for fixing the second body 13 to the bracket 7. This does not allow the second body 13 of JP '311 to rotate with respect to the bracket 7 as featured in the present invention. In fact, JP '311 does not teach or suggest a friction washer as claimed. The Office Action takes the position that the washer 15 of JP '311 is the equivalent of the friction washer of the present invention. Applicant respectfully disagrees with this interpretation of JP '311. JP '311 must be given a fair reading for what it teaches and suggests. The washer 15 of JP '311 is rotatably fixed to the movable shaft 6 so as to rotate together with the bracket 7. This does not generate rotation resistance or friction between the washer 15 and the bracket 7 as claimed. JP '311 fails to teach or suggest a plate spring member 2 that is non-rotatably and axially movably installed on a movable shaft, held in contact with one side

surface of a second bracket wherein the plate spring member rotates with respect to the second bracket and a friction member is non-rotatably and axially movably installed on the shaft, abutting another side surface of the second bracket and rotating with respect to the second bracket as claimed. As such, the prior art as a whole takes a completely different approach and fails to teach or suggest each and every feature of the claimed combination. Accordingly, Applicant respectfully requests that the Examiner favorably consider claim 2 as now presented and all claims that depend thereon.

JP '311 fails to teach or suggest the combination of features recited in claim 4. JP '311 does not teach or suggest the combination of plate spring members that are provided on both side surfaces of a second bracket while being pressed against and held in contact therewith as claimed. JP '311 cannot adopt the recited structure since JP '311 discloses a structure in which the first body 12 is provided with a cam-engaging portion and the second body 13 provided with a cam portion are held in contact with each other to rotate. As such, the prior art as a whole does not teach or suggest each and every feature of the claimed combination. Accordingly, Applicant respectfully requests that the Examiner favorably consider claim 4 as now presented.

Claim 5 has been rejected under 35 U.S.C. 103(a) as being unpatentable over JP '311.

JP '311 fails to teach or suggest the combination of a plate spring member having at least two projections at the top of a curved configuration of a plate spring member wherein the flat surfaces of the projections are in contact with a second bracket with the area of the flat portions being different from projection to projection as claimed. There is no member in JP

'311 corresponding to plate spring member of the present invention. The second body 13 of JP '311 is fixed to the bracket 7 and does not rotate relative to the bracket 7 as claimed. JP '311 clearly discloses that the projection 13A of the second body 13 is fitted to the cutout 8A of the bracket 7 so as to be fixed to the bracket 7. This does not allow the second body 13 to rotate relative to the bracket 7 since the projection 13A of the second body 13 abuts against the bracket 7. As such, the prior art as a whole takes a completely different approach and fails to establish a prima facie case of obviousness since the prior art as a whole does not teach or suggest each and every feature of the claimed combination. Accordingly, Applicant respectfully requests that the Examiner favorably consider claim 5 as now presented.

Applicant has added new claims 7-11. New independent claim 7 provides for features similar to those found in claim 1, but in different claim language. New dependent claims 8-11 have been added to further clarify the features of the invention. Applicant respectfully requests that the Examiner favorably consider new claims 7-11.

Favorable consideration on the merits is requested.

Respectfully submitted
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